



Writing Instructions for Making a Scatter Plot

How to Get a Random Sample from CensusAtSchool

Go to the CensusAtSchool [Random Sampler](#) to download a sample.X

Reference year: *(select year)* **Sample size:** *At least 30 students*

Select questions: *Height, Foot Length*

Location: *Select location*

Year level: *(select a range of year levels)*

To protect privacy there is a rule built into the sampler that the requested sample size cannot exceed 10% entered.

Task:

Your classmate Tilly told you that a person's height is 7 times their foot length. You don't believe this is true. You really want to prove her wrong. You believe that a relationship can be found between height and foot length by constructing a scatter plot. You decide that using CensusAtSchool data will be the best way to decide the matter. You agree that to be fair you should both select different data and make your own scatter plots. To avoid argument you want to make sure that you both follow the same steps in constructing the scatter plots.

In numbered step form write clear instructions for creating a scatter plot. You can use diagrams if necessary. Your instructions can be for hand or for using ICT and must clearly cover the following points in particular:

Selecting the data

- How will the data be selected?
- How many students should be in the sample?

Constructing the scatter plot

- Which variable will be on the horizontal axis and which will be on vertical and how do you know?
- How will you decide the scale for each axis?
- How is each person's height and foot length shown on the scatter plot?

Finding the relationship

- How will you plot each person's height and foot length?
- How will you put in the line of best fit?
- How will you use the line of best fit to show the relationship between height and foot length?
- What sort of check should you do to confirm your answer is reasonable?



ABS Education Services

Name: _____

CaSQ 24A

Date: _____

Note: CaSQ_24B and CaSQ_24C are extensions to this lesson